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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,278	06/19/2001	Koji Sakai	1248-0544P-SP	9443

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EXAMINER

HO, DUC CHI

ART UNIT	PAPER NUMBER
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2616

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/16/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/16/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

09/883,278

Applicant(s)

SAKAI ET AL.

Examiner

Duc C. Ho

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-21 is/are allowed.
- 6) ☒ Claim(s) 1-12, 14, 15, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 13, and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10, 12, 14-15, and 17-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Futato (US 4,813,040).

Regarding claim 1, Futato discloses method and apparatus for transmitting digital data and real-time digitalized voice information over a communications channel.

According to Futato bit stuff module 33-fig.1 maintains a running count of the number of the consecutive "zero" bits. When the count equals a preset value N, signifying that a sequence of "zero" bits has occurred, the bit stuffing procedure is executed in which the input data stream 500-fig.6 is momentarily interrupted while a "one" bit is inserted into the transmit data stream 502-fig.6, see col. 18, lines 42-63.

Regarding claim 2, in Futato the transmitting data occurs between a transmitter 10-fig.1 and a receiver 200-fig.2, see col. 5-line 13 to col. 6-line 9.

Regarding claim 3, in Futato the "one" bit could be inserted at random interval.

Regarding claim 4, in Futato the "one" bit is to be inserted at fixed interval.

Regarding claim 5, the "one" bit pattern can be inserted differently, see transmit data stream 502-fig.6.

Regarding claim 6, the "zeros" bit is a code representing status information indicative of a state between devices.

Regarding claim 7, the "one" bit is a code different from the code representing status information of "zeros" bit.

Regarding claim 8, the "zeros" bit represents status information of a code for idling.

Regarding claim 9, the time period for receiving a code representing "one" and "zero" are distinguished from each other, and the code "one" representing data is adopted in a time period for transmitting the code "zero" representing status information.

Regarding claim 10, when a "one" is received in the time period of "zeros", a previous code, a "zero" representing status information is maintained.

Regarding claim 12, a "one" bit could be transmitted when being inserted in the consecutive "zero" bits of a transmission timing of the "zero" bits.

Regarding claim 14, the system of Futato is capable of utilizing an optical signal.

Regarding claim 15, this claim has similar limitations as claim 1. Therefore, it is rejected under Futato for the same reasons as set forth in the rejection of claim 1. The time interval due to the buffering action of the input buffer 32-fig.1 is randomly varied.

Regarding claim 17, the system of Futato is capable of utilizing an optical signal.

Regarding claim 18, this claim has similar limitations as claim 1. Therefore, it is rejected under Futato for the same reasons as set forth in the rejection of claim 1

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Futato, in view of Ueda et al. (US 6,169,746), hereinafter referred to as Ueda.

Regarding claim 11, Futato discloses all claimed limitations, except the code is a code compliance with an 8B10B encoding system.

One skill in the art would recognize the advantage of using the code 8B10B since it's a well known modulation coding component that performs modulation coding to maintain the DC balance of the bit data and offering low complexity for high speed serial bus systems.

Ueda discloses signal transmission system for high speed serial bus. Ueda discloses the code 8B10B, see col. 8, lines 40-45.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Futato with Ueda.

The suggestion/motivation for doing so would have been to maintain the DC balance of the bit data and offering low complexity for high speed serial bus systems

Therefore, it would have been obvious to combine Futato with Ueda to obtain the invention as specified in claim 11.

Allowable subject matter

5. Claims 19-21 are allowed.
6. Claims 13, and 16 are objected to as being independent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134.

Art Unit: 2616

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner


Duc Ho

03-12-07